

Claims

1. A printer having a printer main body, a print head for executing a print operation on a sheet loaded in the printer main body, and a sheet sensor for executing a predetermined detecting operation on the sheet, wherein

the print head is movable between a print position at which the print head is in contact with or in proximity to the sheet and an evacuated position at which the print head is spaced from the sheet;

the sheet sensor is movable between a detection position at which the sheet sensor is in contact with or in proximity to the sheet and a non-detection position at which the sheet sensor is spaced from the sheet; and

the sheet sensor is moved from the detection position to the non-detection position interlockingly with a moving operation of the print head from the print position to the evacuated position, and movable from the non-detection position to the detection position independently of the print head.

2. The printer according to claim 1, further comprising a head unit having a print head mounted therein, and a sensor unit having a sheet sensor mounted therein, a sheet being sandwiched between the sensor unit and a printer main body when the sheet sensor is disposed at a detection position, wherein first engaging means is provided so as to be freely

engageable and disengageable between the head unit and the sensor unit, and the sheet sensor is moved from a detection position to a non-detection position interlockingly with a moving operation of the print head from a print position to an evacuated position under the state that the head unit and the sensor unit are engaged with each other by the first engaging means.

3. The printer according to claim 2, further comprising second engaging means that is provided so as to be freely engageable and disengageable between the printer main body and the sensor unit, wherein under the state that the print head is disposed at the print position and the sheet sensor is disposed at the detection position, the head unit and the sensor unit are engaged with each other by the first engaging means and the sensor unit and the printer main body are engaged with each other by the second engaging means, and when the print head is moved from the print position to the evacuated position from the state that each of the first and second engaging means carries out the engagement, the engagement state between the sensor unit and the printer main body by the second engaging means is released.

4. The printer according to claim 3, wherein when the print head is moved from the print position to the evacuated position and the engagement state between the sensor unit and the printer main body by the second engaging means is

released, the sensor unit is movable from the detection position independently of the head, and is engageable with the printer main body by the second engaging means.

5. The printer according to claim 3, wherein the first engaging means contains a first latch pawl provided to the head unit, and a first catching portion provided to the sensor unit, the first latch pawl being freely engaged with and disengaged from the first catching portion; the second engaging means may contain a second latch pawl provided to the printer main body and a second catching portion provided to the sensor unit; the second latch pawl being freely engaged with and disengaged from the second catching portion; and the latching force of the first latch pawl to the first catching portion may be set to a value larger than the latching force of the second latch pawl to the second catching portion.

6. The printer according to claim 5, wherein the head unit is designed so that one end thereof is freely rotatably mounted at one side portion of the printer main body, the first latch pawl is provided to the other end of the head unit, the sensor unit is designed so that one end thereof is freely rotatably mounted at one side portion of the printer main body, and the first and second catching portions are provided to the other end of the sensor unit, and the second latch pawl is provided to the other side portion of the printer main body.

7. The printer according to claim 6, wherein a rod-shaped portion is provided to the other end of the sensor unit so as to extend in the axial direction, the first and second catching portions are provided at different positions of the rod-shaped portion, a first recess portion engaged with the rod-shaped portion is provided at the other end of the head unit, a first latch pawl is provided at the inner edge of the first recess portion, a second recess portion with which the rod-shaped portion of the sensor unit is engaged is provided to the other side portion of the printer, a second latch pawl is provided at the inner edge of the second recess portion, and the first and second recess portions are fitted to the rod-shaped portion from the confronting direction.

8. The printer according to claim 7, wherein one ends of the head unit and the sensor unit are mounted in the printer main body while the rotating centers thereof are displaced from each other, and when the respective units rotates in the same direction interlockingly, the first recess portion is relatively moved along the rod-shaped portion, and the engagement state of the first latch pawl to the first catching portion is released.

9. The printer according to claim 6, further comprising holding means for holding the sensor unit at the non-detection position.

10. The printer according to claim 6, further comprising

an urging member for urging the head unit at all times so that the print head is moved from the print position to the evacuated position, and holding the head unit at the evacuated position.

11. The printer according to claim 10, further comprising braking means for braking the head unit when the print head is moved from the print position to the evacuated position by a predetermined angle or more.

12. A printer having a printer main body, a print head for executing a print operation on a sheet loaded in the printer main body, and a sheet sensor for executing a predetermined detecting operation on the sheet, comprising:

a head unit in which the print head is mounted; and

a sensor unit in which the sheet sensor is mounted, wherein the print head is movable between a print position at which the print head is in contact with or in proximity to the sheet and an evacuated position at which the print head is spaced from the sheet,

the sheet sensor is movable between a detection position at which the sheet sensor is in contact with or in proximity to the sheet and a non-detection position at which the sheet sensor is spaced from the sheet,

one end of the head unit is freely rotatably supported at one side portion of the printer main body, and the other end thereof is freely engageable with and disengageable from

the sensor unit by first engaging means,

one end of the sensor unit is freely rotatably supported at one side portion of the printer main body, and the other end thereof is freely engageable with and disengageable from the printer main body by second engaging means, and

the sheet sensor is moved from the detection position to the non-detection position interlockingly with a moving operation of the print head from the print position to the evacuated position, and movable from the non-detection position to the detection position independently of the print head.

13. The printer according to claim 12, wherein the first engaging means comprises a first latch pawl formed in the head unit, and a first catching portion that is formed in the sensor unit and freely engageable with and disengageable from the first latch pawl, the second engaging means comprises a second latch pawl formed in the printer main body, and a second catching portion that is formed in the sensor unit and freely engageable with and disengageable from the second latch pawl, and the latch force of the first latch pawl to the first catching portion is set to be larger than the latch force of the second latch pawl to the second catching portion.

14. The printer according to claim 13, wherein a rod-shaped portion is formed to the other end of the sensor unit so as to extend in the axial direction, the first and second

catching portions are formed at different positions of the rod-shaped portion, a first recess portion fitted to the rod-shaped portion is formed at the other end of the head unit, the first latch pawl is formed at the inner edge of the first recess portion, a second recess portion fitted to the rod-shaped portion of the sensor unit is formed at the other side portion of the printer, the second latch pawl is formed at the inner edge of the second recess portion, and the first and second recess portions are fitted to the rod-shaped portion from the respective confronting sides thereof.

15. The printer according to claim 14, wherein the one ends of the head unit and the sensor unit are supported by the printer main body so that the rotational centers thereof are displaced from each other, and when the respective units are interlockingly rotated in the same direction, the first recess portion is relatively moved along the rod-shaped portion, and the fitting state of the first latch pawl to the first catching portion is released.

16. The printer according to claim 12, further comprising holding means for holding the sensor unit at the non-detection position.

17. The printer according to claim 12, further comprising an urging member for urging the head unit at all times so that the print head is moved from the print position to the

evacuated position, and holding the head unit at the evacuated position.

18. The printer according to claim 17, further comprising braking means for braking the head unit when the print head is moved from the print position to the evacuated position by a predetermined angle or more.